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A new subspecies of Black Swift *Apus barbatus* from Sierra Leone

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Apus barbatus glanvillei subsp. nov.

Diagnosis: Similar to *Apus barbatus sladeniae* (Ogilvie-Grant) in the reduction of white on the chin and throat, but in general colour paler, closer to *A. b. barbatus* (Sclater) and *A. b. roehli* Reichenow.

Distribution: Only certainly known from Rokupr, Sierra Leone, on the Great Scarcies River at 9° 01' N., 12° 57' W.

Type: In the British Museum (Natural History), registered number 1938. 6. 15. 14. Female, collected by R. R. Glanville at Rokupr, 20 feet above sea level, 28th September 1937, collectors' number 226.

Measurements of type: Wing 175, tail 74 mm.

Colour of soft parts: Bill black, feet and irides dark brown.

Material examined: One specimen of *A. b. glanvillei* (the type), four of *A. b. sladeniae* (including the type), fifteen of *A. b. roehli*, thirteen of *A. b. barbatus*, all in the British Museum.

Remarks: The type of *glanvillei* had been misidentified as an *A. a. apus* (Linnaeus), but is clearly attributable to *A. barbatus*, not *A. apus*. The differences between the two species are given by Lack (1956: 50-51). Thus this specimen from Sierra Leone has the wings quite strongly greenish bronzed, the underparts have well marked white tips to the feathers, and the difference in length between the outermost pair of rectrices and next adjacent pair is only 2 mm. The first (outermost) primary is shorter than the second by 5 mm.

All four specimens of *sladeniae* have the mantle markedly blue-blackish contrasting with the brown of the crown and rump. Most specimens of *roehli* and nominate *barbatus* show an analogous contrast, though the blackish mantle lacks any blue tone as in *sladeniae*. The specimen of *glanvillei* shows no contrasting darkening of the mantle, which is practically concolorous with the brown crown and rump. Two specimens of nominate *barbatus* and four of *roehli* show a similar lack of contrast, which is perhaps due to wear. It is not a sign of immaturity, since an immature specimen of *roehli*, with white margins to the secondaries and their coverts, has a well marked blackish mantle. Apart from the uniform brown upperside of the specimen of *glanvillei*, it is altogether paler than the four of *sladeniae*, but can only be distinguished from the specimens of nominate *barbatus* and *roehli* lacking the dark mantle by the reduction of white on the chin and throat as in *sladeniae*. The strong greenish-bronze on its wings, already mentioned, is equalled only in five other specimens examined—in two of nominate *barbatus* and in three of *roehli*.

According to White (1965: 212), *A. barbatus* is unknown in West Africa west of Fernando Po and the southern Cameroons, where it is represented

by *sladeniae*. Thus the Sierra Leone specimen represents an extension of the known range of the species by some 1,500 miles. Although it is the only one available, the assignment to it of a new subspecific name is considered unavoidable, in view of its distinctness in colour and the remoteness of Rokupr, Sierra Leone, from the range of *A. barbatus* as otherwise known.

The information in this paragraph has been almost entirely supplied by Mr. Glanville, from his local knowledge of Sierra Leone, where he was a member of the Department of Agriculture, and from the notes which he made when living at Rokupr and he collected the specimen of *glanvillei*. The country south of Rokupr, near the Great Scarcies River, consists mostly of flat, extensive swampland, largely under wet rice cultivation, while even to the north for a considerable distance there is no ground more than 100 feet above sea level, low "bush" with oil-palms and tall grasses predominating. As elsewhere (see for example McLachlan and Liversidge, 1957), presumably *A. barbatus* in Sierra Leone requires crevices in cliffs or vertical rock-faces for breeding. The nearest such sites to Rokupr would appear to be in neighbouring Guinea, some 60 miles due north. In Sierra Leone they exist 80 miles north-east of Rokupr, and in numerous places further north and east within the territory. Bates (in Bannerman, 1931: 691) records swifts believed to be *A. apus* around rocky places on the Birwa Plateau (8° 50' N., 10° 48' W.) on 9th and 18th July 1930. These could well have been *A. barbatus*, the occurrence of *A. apus* in July being unlikely. The Rokupr specimen had its stomach distended with termites. It was one of a party of some twenty feeding on these insects flying from mounds on cleared ground at the Department of Agriculture's station there. These swifts had been around the station in small numbers for a month previously and are believed to visit the area regularly in September, which is towards the end of the dry season. However, *A. apus* may also be present, for Marchant (1942: 157) records this species as occurring in south-eastern Nigeria from as early as 25th August until as late as 25th April.

The unusually dark colour of *sladeniae* may be correlated with breeding quarters in an area of high rainfall. Thus the mean annual precipitation map of Africa in Koch and Schulze (1956) shows the figure for Fernando Po to be over 5,000 mm. (200 inches). On the coast of Sierra Leone it exceeds 4,000 mm., but inland there is a considerable drop, and *glanvillei* may breed in areas where the mean is between 2,000 and 3,000 mm. (80 to 120 inches).

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